THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by William Hunting, F.R.C.V.S.

No. 722. MAY 10, 1902. Vol. XIV.

Army Veterinary Department.

The Army Medical Service.—Two Scottish members last week asked the Financial Secretary of the War Office quite a series of questions as to why an army medical officer attained the rank of captain and major in three and twelve years respectively, while a veterinary officer attained the same rank in seven and a half and fifteen years. This was Mr. Cross's question, and Mr. John Wilson followed it up by asking why there were such differences in rank, pay, and promotion between the medical and the veterinary services. Lord Stanley said, in reply, that a new warrant for the Army Veterinary Department had just been issued, giving considerable and additional advantages. Mr. Cross wanted a statement of the advantages, but the Financial Secretary referred him to the warrant, of which he promised him a copy.—*British Medical Journal*, May 3rd, 1902.

Judging from the extract from the *British Medical Journal* of May 3rd, 1902, the condition of the Army Veterinary Department appears to be at last attracting some attention in the House of Commons. Lord Stanley, however, is a past master in the art of drawing a red herring across the true scent, and for this alone he well earns his salary.

As we have more than once pointed out, it is greatly to be regretted that there is not a working member of the veterinary profession in the House, who being behind the scenes would be able to refute such diplomacy which the layman from want of knowledge of detail is unable to do.

The obvious reply to Lord Stanley's answer would have been to request the noble Lord to point out where the *considerable* and *additional* advantages he mentioned came in, as the Honourable member who put the question had carefully studied the Warrant and failed to discover any, so perhaps the noble Lord would enlighten his ignorance.

It is objected that the expense of a seat in the House of Commons is prohibitive, but where there is a will there is a way. Working men have their representatives looking after their interests, and there are many M.P., men with small means, in the ranks of the Irish party. Some day perhaps we may have a representative in the House, but we need not remain idle in the meantime. An opportunity to bring our case forward will arise when the Army Estimates are being discussed, and we should all try and influence every M.P. we know to assist us in obtaining simple justice. Success may not attend our efforts this session, but we can try and try again. Remember, too—let everyone boycott the A.V.D. until the Service is worth the trouble, time and expense entailed by the necessary study and examinations.

Diseases of Animals in Belgium.

On page 698 will be found a translation of some extracts from the Report of the Belgian Minister of Agriculture which are instructive. Two diseases are referred to—Pleuro-pneumonia and Glanders. As to the first our regulations and results are ahead of Belgium; as to the second we are far behind.

The Belgians are successfully stamping out the lung disease of cattle by much the same means as was effective here, but they seem to credit part of the success to a novel arrangement in which every veterinary practitioner is an active inspector. Evidently the slaughter of diseased and all in contact cattle is sufficient to explain matters, as our own experience has shown.

As to glanders the report discloses a nasty fact, viz., that we send glanders to Belgium and that New York does not. It is a disgrace to our country that this should be, and our only excuse is that New York sends only useful young horses, we send old, worn-out cripples which have been subject to the infection of town life.

Agriculturists lend no assistance to those in this country who press upon Government the expediency of stamping out glanders, their selfishness blinds them to the necessity. Just as foreign countries have checked our sales of cattle by instituting a tuberculin test, so we may soon expect all countries to spoil our horse trade by a mallein test. When this takes place the agriculturist will find his interest in joining town authorities in pressing upon Government the expediency of stamping out glanders. Belgium has adopted inspection of imported horses and testing with mallein. Our Government—misrepresented by the Board of Agriculture—ignores mallein, and issues regulations based upon the knowledge of 30 years ago.

Belgium has some 50 cases of glanders per annum, we have 1500, and yet Mr. Hanbury is convinced that no alteration of the Order is necessary! "There isn't a word."

Veterinary Work in South Africa.

We direct attention to a series of reports (p. 698) from the Natal Agricultural Journal, on Rinderpest. They are extremely interesting, and show what veterinary experts can do in the Colonies when given an opportunity. South Africa has shown the ineptness of the British War Office—it seems probable that it will show the weakness and stupidity of the Board of Agriculture. Given, at home, the same opportunities, our profession could save the owners of stock millions.

CASES AND ARTICLES.

CLINICAL NOTES ON INFLUENZA.

(Open Air Treatment.)

As Influenza has now unfortunately become almost an annual occurrence here, the following notes may be of interest to the younger members of the profession, especially in India, who have never met the disease amongst large numbers of horses.

Occurrence—The first cases occurred this year on the 10th January and were isolated and kept under observation until the 12th idem so as to make sure of a correct diagnosis, as in former years the disease commenced in the month of December. We were in hopes this year that as the Government shipments were late in arriving from Australia, and the disease having already occurred in the Bombay stables early in November, that we might possibly escape the epidemic, as we did three years ago. The animals first affected were amongst the new arrivals from the Bombay Stable Company, so there is little doubt that the disease orginated in Bombay and was imported to the depôt. In a few days there were 20 odd cases isolated in the Influenza Hospital—the majority of which were mild, but as the disease progressed the attacks became more severe, and then became mild again before the close of the outbreak.

Symptoms.—The first symptom always noticed was swelling of both fore and hind pasterns and fetlocks accompanied with a sudden rise of the internal temperature, 102 to 103; the horse was then sent to Hospital and in a few hours (by the same afternoon) the swellings ran up to the knees and hocks and often into the sheath and along the belly, the temperature continuing to rise—on several occasions reaching, and even exceeding 107° on the 1st or 2nd day after the animal was admitted. In addition to these there was sometimes, not always, a watery discharge from the eyes and nostrils, often of a muco-purulent nature. The visible mucous membranes were deeply injected, the eyelids were sometimes swollen, and the animal wore a tired heavy expression; but I may say that without exception (complications excluded) they kept on their feed even with a temperature of over 106°. The respirations were about 22-26. The pulse was generally very slightly accelerated, full and strong.

Duration.—Usually from eight to ten days; the average given in the statement at the end of these notes is perhaps misleading as many mild cases were struck off the Register and placed in a convalescent line to make room for others more severely attacked.

Treatment.—Newly infected horses were removed from the depôt lines to the influenza hospital, a structure run up on a high and airy situation at the time of the commencement of the outbreak and which consisted of eight loose pens or boxes 33 ft. by 33 ft. made of iron hurdles 5 ft. high, open on all sides, and covered with a bamboo "chupper." The roof was nearly flat, 16 ft. high, and was put up simply as a protection against the sun, which is very strong at this time of the year. Each pen was well bedded down and held from 6 to 8 horses which were allowed to roam about at will—one or two syces were told off to each pen. The horses received little or no grooming, but had their eyes, noses, docks, and sheaths sponged out with a mild disinfectant and dried three or four times a day; they were well clothed at night and received the following ration—

6 lbs. Bran
1 lb. Crushed Linseed
50 lbs. Lucerne Grass
Hay *ad lib.*

A plentiful supply of fresh water was always handy. Temperatures were taken before 8 a.m. (I may here mention a great fall in a horse's temperature was generally noticed after a cool night, but it usually went up again before the evening) and after 5 p.m. This was all the treatment adopted, except in the case of a few thoroughbred chargers whose temperatures remained high morning and evening for two or three days consecutively, when full doses of antifebrin and phenacetine, in bolus, followed by an alcoholic stimulant, were given. Two doses were generally sufficient to produce the desired effect, so that the treatment essentially consisted of allowing plenty of fresh air and green food, with good nursing. The last case of the disease occurred on the 7th March and the influenza hospital is now practically empty.

Complications.—Out of the 273 cases one died (a thoroughbred R.H.A. Ride), the disease in this case taking the gastro-intestinal form with profuse purging, and the horse dying within three days of its being admitted. (Post-mortem examination revealed a true case of enteritis). A few cases took the rheumatic form, which at first might have been mistaken for laminitis. Three took the pneumonic form, but all recovered. One marked case of pleurisy occurred. Several suffered from colicky pains during the attack, especially when their temperatures were high. There were also three cases of suppurative lymphangitis with one hind leg involved in each case. Hæmorrhagic purpura, which might have been expected as a sequel was entirely absent during the outbreak; fortunately there was not a single case of strangles amongst the Walers, although there was a small outbreak of this disease going on from the first amongst the countrybred stock in the paddocks. No. of cases, 18.

Roaring is a very common sequel to influenza here, especially after prolonged attacks; last year we escaped with wonderfully few cases. Sufficient time has not yet elapsed to give any definite opinion on this point in connection with this year's outbreak.

General Remarks.—The disease here practically attacks only lately landed Walers—one case occurring amongst the Arabs and four amongst countrybred young stock (following on strangles in all four cases.) Seasoned horses, and horses that were affected last year, provided they were in good condition, were practically immune; the few isolated cases amongst this class were very mild. The bigger and better bred the horse (Chargers and R.H.A. stamp) the worse he seemed to be effected, The coarser bred horses' legs swelled the most, and then remained swollen for some considerable time after the horses had been discharged as cured, without any appreciable inconveni-

ence resulting to the horses, and the swelling cleared up in time with daily exercise—this class also lost less condition. The light, well bred, small, cavalry horse seemed to suffer as little, or less than other classes. Another remarkable feature is how wonderfully quickly the horses pick up and improve in condition after influenza, coming as it does at a most inopportune time, *i.e.*, during the young Walers' 1st or 2nd month in a new climate after a long and sometimes a very severe sea voyage.

F. D. Hunt, Vet.-Lieut., A.V.D.

Ahmednagar, March, 1902.

Statement showing numbers, etc., Attacked by Influenza during 1901-02, as Compared with the Previous Year.

Date of Outbreak.	Affected.	Mortality	Classification of horses affected during 1902.			Average of days in Hospital.		Remarks.
			Australians.	Arabs.	Country Breds.	1900-01	1902	
21 Dec. 1900	327	Destroyed 1						No. of Walers purchased during the season—388
12 Jan. 1902	273	Died 1	268	1	4	8	8	No. of Arabs—151
								Largest No. of all classes of horses present at Depôt during the outbreak—723

GLOSSANTHRAX—RECOVERY.

By J. E. Wallis, M.R.C.V.S., Hailsham.

On the 21st Nov. last, I received an urgent message to attend a three-year-old half-bred mare, rising four, which had a little difficulty in breathing. An examination revealed a diffuse but not deep swelling of the submaxillary spaces, the parotid region was only slightly swollen, but tender on pressure. A stimulating liniment was applied to the parts affected and salines given internally.

22nd. Swellings increased in volume and extent, tongue swollen; stimulating liniment applied as yesterday, febrifuges and salines given.

23rd. Patient much worse, the whole head, face, nose and submaxillary spaces swollen to an enormous size and firm on pressure; great swelling of the tongue, propping the mouth open and extending beyond the lips four inches, a purple red colour on the sides and yellow on the dorsal surfaces, and very hard and roaring respirations, which could be heard at a great distance. Four hypodermic injections of Formalin were put into the deep swellings of the submaxillary, two in the masseter muscles, and two each side in the channels of the neck. The mouth was syringed with an ordinary female enema (which was not easily introduced owing to the swollen tongue filling the cavity of the mouth) with Creolin solution every two hours. Pot. chlor. and pot. nit. dissolved in hot milk and water and given in form of enema per rectum. Scarification of lips, tongue and submaxillary, afterwards well sponged over with a solution of Chinosol every three hours. Head slung by means of pulley every hour for twenty minutes at a time as patient unable to hold it higher than two inches from the ground.

24th. Patient much better, all swellings greatly reduced—had taken since last visit three eggs and a quart of milk, but with difficulty. Owner says mare's condition changed for the better six hours after my visit of yesterday, and continued to do so up to a certain point. Hypodermic injection of Formalin adjacent to each submaxillary gland and in the two masseters; mouth syringed with sol. of Chinosol every three hours.

25th. Patient much worse, swelling occluding eyes; great difficulty in breathing; hypodermic injections of Formalin; 1gr. Eserine behind elbow; general scarification; head slung as before; mouth syringed with potass. permang. sol. every two hours; sponge with Creolin where scarified frequently; milk and gruel enemas; head in sling

26th. Patient much better, swellings subsiding, tongue getting softer and flexible, hypodermic injections of Formalin; mouth syringed with Creolin sol. every four hours; nourishment given; head in sling.

27th. Patient slightly improved since yesterday; bowels not acting, hypodermic injection 1gr. Eserine behind elbow; takes little nourishment; mouth syringed with potass. permang. sol.

28th. Patient better since yesterday, bowels acting, takes nourishment; head, face, etc. sponged with a lotion of solutio picea carbonis; still likes her head in slings, which causes ease, and will stand in this condition for an hour at a time of her own free will; mouth syringed with potass. permang. sol.

29th. Swelling in submaxillary spaces slightly increased, probably due to repeated injections, otherwise mare improving in other respects; tongue quite flexible; submaxillary, etc. sponged with sol. picis carbonis frequently. Quinine and strychnine to be given twice daily.

30th. Patient still improving, swellings disappearing.

Dec 4th. Patient doing well, but still a thickening of the submaxillary spaces and parotid region; these parts were blistered, and pot. iod. and iodine given night and morning for a week.

From this date the mare has returned to her normal condition, and at the present time is carrying her owner in training for the yeomanry. The

temperature throughout her illness did not exceed 105.8.

I consider the term Glossanthrax a misnomer, for it is an entirely different disease to Anthrax, although from an examination of the blood under the microscope I found that the bacilli resembled the anthrax bacillus very closely.

ENLARGEMENTS ON A HORSE'S BACK.

The paragraph signed R. T. A. in last week's *Record* relates to a subject of which I have had some experience. Fifteen years ago I had three cases of a similar nature, but they were not in grey animals, and nearly each year I have seen a case or two, including one under treatment now.

Some cases are simple: a small boil, a limited pus formation, evacuation, slow healing. The cause of the boil is often difficult to find, but when found it presents the appearance of an empty bot skin, without hooks or spines, a small translucent, segmented thin skin.

I forwarded two to the late Miss E. A. Ormerod, in the hope that something relative to their natural history might be discovered, but little information could be afforded by that talented lady.

I made some enquiries, and I found that the condition was more common in France than England. Loiset, a member of the Veterinary Society of Calvados, published a note on the matter under the title of "L'œstre Cuticole du Cheval" in 1844.

A recent reference to Fleming's translation of Neumann's Parasites discloses further, but still scanty, particulars of this form of parasitism (p. 56). Bracy Clark observed that horses were invaded by the larvæ of the hypoderma.

I can throw no light on the fly which causes this state of affairs nor the manner in which the larva arrives at the spot it is found, but I am confident a very well developed ovipositor must exist, as I have found larvæ deep in muscles and under fasciæ.

The disease is not without danger, as the following case will show:

In the spring of 1887 a brown gelding suddenly showed an enormous number of small abscesses over both sides of the back; the actual cause was not suspected, warm fomentations only resulted in a subcutaneous confluence, and a large sac containing pus formed on each side of the back. Each of these was evacuated by large dependent orifices, and amongst the creamy pus were discovered the two larvæ previously mentioned as sent to Miss Ormerod. Constant irrigation of the sacs and wounds did not stop the pus formation, and after about three weeks a reeling gait and an inability to rise showed themselves. General marasmus and paralysis of the hind quarters succeeded, and in spite of a good appetite and other favourable symptoms, the animal had to be destroyed ten weeks after the lancing of the large abscesses; the pus formation throughout was undiminished.

A *post-mortem* examination revealed all the internal organs healthy; locally there were an enormous number of cavities in the muscular tissue, some with large and some with small openings into the subcutaneous cavity, which gave no evidence of diminution or healing; there were small perforations through fasciæ and considerable cavities in the deeper muscles; the whole of the cavities contained pus, and in many a larva. A quantity was scraped out, added to water and stirred up, when a large number of the larval skins were discovered.

I have never seen a plump larva, those discovered have only been white, delicate, attenuated, empty skins. I think the paralysis and emaciation were due to a toxic principle produced in the system by maceration of the larvæ in the tissue fluids.

Another case of that year, a brown mare, presented a number of abscesses of the size of walnuts on one shoulder. From nearly every one the same kind of empty skin was extracted. The healing was particularly slow, and I have found this the case in the majority of cases.

CHARLES SHEATHER, F.R.C.V.S.

EXTENSIVE ENLARGEMENT OF HOCKS.

The photo inclosed is of a brood draught mare which I saw when calling at a farm near here to examine a horse for soundness.

The condition of the hocks is due to an attempt on the part of the owner to cure mallenders. The agents employed were mercury ointment, blisters and

peculiar and mysterious preparations, the composition of which I was not told; the only effect produced seems to have been one of a stimulating nature on the connective tissue which has grown in an alarming manner to the surprise and discomfort of the owner. The subject is eight years old, and in foal.

J. P. ISHERWOOD.

ABSTRACTS FROM FOREIGN JOURNALS.

SUNSTROKE, by M. Mouilleron, communicated to the Paris Central Veterinary Medical Society.

The author furnishes a temperature chart for July, 1900, when the weather was excessively hot, and points out that although he has 17,000 omnibus horses under his care, that in former years sunstroke was rare.

The cases he records took place between the 15th and 29th of July when the mean temperature in the shade was 82°F, and in the sun on the 16th, 19th, and 25th 158°, 165° and 167°F, and on these days owing to the great rush of traffic at the exhibition, the mares were very hard worked and suffered from the heat, and the 33 cases reported took place amongst those that had already performed part of their journey.

The author's words are "In the majority of cases the symptoms appeared suddenly, the animal stopping dead without power to move, or falling as if shot. It is however worthy of noting that most of the cases had either before been treated for some complaint or else suffered from some organic defect. Thus two had heart complications, ten were roarers, and eleven broken winded. When the nature of sunstroke is considered this coincidence need not create any surprise as animals suffering from respiratory or pulmonary troubles are deficient in resistance, and, as a matter of stable economy, such are only used during the cool hours of the day.

The following table shows the hours of the day during which sunstroke is most likely to take place.

3 cases from	9	to	10	a.m.	1 case from	5	to	6	p.m.
2	,,	,,	10	,,	12	p.m.	1	,,	,,	6	,,	7	,,
1	,,	,,	12	,,	2	,,	5	,,	,,	8	,,	9	,,
4	,,	,,	2	,,	3	,,	4	,,	,,	9	,,	10	,,
6	,,	,,	3	,,	4	,,	3	,,	,,	10	,,	12	,,
2	,,	after 12.											

Although work commenced at 5 a.m. not a single case took place before 9, and the greatest number have been reported between 2 and 4 in the afternoon and from 8 to midnight. This can in the first place be accounted for by the intensity of the direct solar rays, in the second by the radiation of heat from the surrounding buildings, also that at this hour of the night the air is not so pure as in the early morning.

The greatest number of cases are recorded on July 17th and 19th, *viz.* 5 on the first and 7 the second day, but on the fall of rain they ceased, although on July 25th the temperature was 162°F in the sun."

The author is of opinion that sunstroke is a complex morbid condition due to asphyxia and poisoning. The asphyxia is mechanical and due to pulmonary stasis brought about by non-oxydation of the blood on account of the rarified state of the atmosphere. This produces toxic intoxication with retention of leucomaines. The patients are described as suddenly falling and remaining with extended limbs on the ground in a complete state of insensibility, and having to be removed in a float to the stables, where the following symptoms were noticed:

Anxious expression, the eyes wide open and prominent and the conjunctivæ congested, the body bathed in perspiration and the skin hot, nostrils widely dilated, respirations short, painful and quick, in one case amounting to 132 per minute; pulse feeble and indistinct, the artery being full and distended. The contractions of the heart violent when lying down, complete insensibility and loss of feeling in the skin. When standing, the limbs planted wide apart, head carried low down, movements incoordinate and unstable.

The temperature rises to 109°F in some cases, and may remain at that point for an hour-and-a-half when it commences to fall gradually and regularly to normal, but in the majority of cases death supervenes rapidly.

Out of the 33 reported there were 7 recoveries, 9 deaths, 12 cases of laminitis and 5 of gangrenous pneumonia.

Death was rapid, usually within two hours, and in such the temperature remained elevated.

Recovery was never complete under three to six hours, commencing with slight fall of temperature between the first and second hour, but without any alteration in the pulse. About the third hour the respirations became easier and gradually the eyes resumed a normal appearance, the respirations becoming deeper, pulse more perceptible, with a falling temperature.

As a sequel, gangrenous pneumonia was most to be feared, causing death in three to four days, the first symptom appearing about twelve hours after the sunstroke, when the animal appeared to be out of danger.

The temperature was a valuable index. If after a regular decline it remained at about 104°F. Pneumonia usually supervened, and death took place in three to four days.

Another complication noticed was laminitis, which usually made its appearance the next day.

Post mortem —All the organs were congested. The gastro-intestinal mucous membrane was hyperæmic but not thickened. Liver congested, friable and yellow. Spleen enlarged and engorged with blood. Kidneys softened and greatly congested. Bladder contains a small quantity of reddish-coloured urine the mucous membrane being of a pink colour. Lungs enormously engorged with black blood. Heart softened, with endocardium and pericardium studded with patches of ecchymosis. The muscles were not softer than natural, but darker in colour and tinged with yellow.

Treatment.—As soon as possible measures must be taken to avoid asphyxia and reduce the temperature by placing the patient in a shady well-ventilated place. Bleeding is recommended, with cold douches to the body, cold enemas, and cold water packing, which should be constantly renewed.

Subcutaneous injection of ether, caffeine, and normal salt solution have been tried but without apparent result.

Two horses were given each about 500 litres of oxygen; one recovered, the other died. Both were very ill when admitted, the first with a temperature of 109.4, he was not bled but given cold douches and 500 litres of oxygen in five doses. In three hours he

rose to his feet, and was returned to his stable. Two days afterwards he was at work.—*Bulletin de la Société Centrale de Médecine Vétérinaire*, 13th March, 1902.

JOSHUA A. NUNN, Vet.-Lt.-Col.

Extracts from the "REPORT OF THE COMMISSION APPOINTED TO ENQUIRE INTO THE WORKING OF THE PROVINCIAL MEDICAL COMMITTEES FOR THE YEAR 1900." (Brought before the Royal Academy of Medicine, Belgium, by the Minister of Agriculture). M.DESSART, Reporter.

"The disappearance of contagious pleuro-pneumonia from the whole country since the last few years is very remarkable by its constancy. It is the triumph of the present organisation of the State Veterinary Service, which utilises the whole of the civil veterinary surgeons, under the title of "Vétérinaire Agréé," to assist in the carrying out the laws and sanitary police regulations, whilst formerly only a privileged section could intervene. This disappearance of a disease which had caused so many losses to agricultural prosperity, is consequently the result of the present general employment of the whole of the practitioners providing they have the legal diploma, and of the extension, aided by sufficient indemnities, of slaughter of not only the suspected but those that were even suspected of having been in contact with diseased animals.

"*Glanders.*—In 1900, 8554 horses were landed at Antwerp of which there were :—

1. Branded	8406
2. Not branded :	
(*a*) Living, incapable of travelling on foot, carted to slaughter-house	14
(*b*) Killed, carted to slaughterhouse	55
(*c*) Dead, ,, ,,	79
Total	8554

"Fifty branded horses, *apparently healthy* when alive, exhibited glanders lesions on post-mortem examination.

"Fifty branded horses, more or less doubtful, were landed, and among them were three that came from Goole and two from Leith. These five horses were discovered to be glandered after slaughter at Antwerp.

"Horses imported from England (Harwich excepted) and malleined at Antwerp 987

Imported from Harwich	20
,, ,, New York	16
Total	1023

"Glanders was found 17 times in horses arriving from England ; not once in those landed from Harwich and only once in those sent from New York. Consequently 18 cases of glanders were detected in 1023 horses tested with mallein.

"In other cases, about 12, were discovered in the province.

"In Brabant there were 37 cases of glanders of which 26 were discovered by the aid of mallein. Western and Eastern Flanders each had two cases. This disease has also been observed in Hainault and in the Province of Liege."

* * * *

"The commission appointed to examine the reports for the year 1899, had already remarked that notwithstanding the relatively great number of worn out or unserviceable animals sent from England to Antwerp, there was no danger of the indigenous horses becoming contaminated, as the strict regulations applied to foreign horses in case of being glandered removed the risk.

"M. Remy, the Government Veterinary Inspector at Liege, has expressed the opinion, and we think it justified, that glanders tends to disappear in the same manner as contagious pleuro-pneumonia has, from the kingdom, under proper regulations.

"The Royal Order of November 22nd, 1900, which has replaced that of September 20th, 1883, gives the Minister, among other things, the power of :

1. Ordering the application of the mallein test : (*a*) to animals suspected of being glandered or farcied ; (*b*) to animals that have been in contact or working with others that are affected or suspected of being affected with these diseases ; and (*c*) to animals that are found in an infected establishment within 45 days.

2. Ordering the slaughter of animals that have been tested with mallein and have reacted.

"This new decree will contribute very much to the realisation of M. Remy's prophecy.

"No case of glanders was reported in mankind." (*Annales de Médecine Vétérinaire, de Bruxelles.*)

Translated by HENRY GRAY, M.R.C.V.S.

TREATMENT OF RINDERPEST.

The following Reports are reprinted from the April number of the Natal Government Agricultural Journal :—

To the Minister of Agriculture,—

As the officer responsible for the control and suppression of Rinderpest in this Colony, I should like the following statements, which embody my views and those of the District Veterinary Surgeons who have had experience in the different methods used for the suppression of Rinderpest, published for the information of the public.

The disease came to us from the Orange River Colony in October last, and two outbreaks occurred in the Upper Tugela Division, which were suppressed. The reported third outbreak in this division on the farm Earthcote was stated to be Rinderpest by the Stock Inspector, and we have in writing the statements of two landed proprietors of the Division, one to the effect that he was of opinion that it was Rinderpest, and the other that he was not prepared to say that it was not a case of Rinderpest. Only one animal died. In the Division of Klip River eleven outbreaks occurred, which have also been suppressed. In Zululand the disease has been stamped out, and no further cases have occurred in the infected area in the Krantzkop Division since the 16th March. The disease still exists in the Newcastle, Dundee, and Umsinga Divisions, and I fear will continue in the first two divisions while the military exigencies require the movement of stock. The mortality in infected troops with the exception of two (Normandien and Blesboklaagte), has not been high.

From the first appearance of the disease in this Colony it has been my constant endeavour to at once control its spread, and to suppress in the speediest and most practicable manner, local and isolated outbreaks; with this end in view I decided to adopt the bile method of treatment. Ninety-nine per cent. of owners have been supplied with glycerinated bile, and from the results obtained therefrom I do not think its strongest opponents can condemn it. I am confident that the control of the disease and its suppression in the divisions above mentioned are due to this agent. Much has been written and spoken regarding the different treatments of this disease during the past few months. I am, however, satisfied that had either the raw bile or serum method (*i.e.*, the method of salting cattle with serum, necessitating the carrying of virulent blood) been generally permitted, the mortality would have been far higher, and the disease disseminated instead of being controlled. It will be as well here to give a sketch of the line of treatment we have endeavoured to carry out. By Government Notice, No. 506 of 1901, the use of the bile or any portion of an animal suffering or dead from Rinderpest is prohibited, except with the permission of the Principal Veterinary Surgeon. That this is a most necessary notice will be recognised by all. When the disease showed signs of spreading in the Klip River and Upper Tugela Divisions, in November last, a general permission to use bile was given to owners of stock in those divisions. Owners were not restricted to the use of glycerinated bile, but were advised to use this agent for the first inoculation. This permission to use bile was extended to the Newcastle and Dundee Divisions, but as in some four cases owners persisted in using raw bile for the first inoculation and set up fresh centres of disease in the Umsinga Division, permission was given for the use of glycerinated bile only. Such permission, however, does not prohibit owners who are desirous of using raw bile for the second inoculation from doing so. Permission for the carrying of virulent blood into clean areas is not given. The Department has endeavoured to supply the public with whatever material it demanded, but so far there has been no demand for serum. The great bulk of bile issued by us has been glycerinated. Raw bile is, however, supplied for the second inoculation to owners who request it when such material is on hand. Those who claim that the addition of glycerine to raw bile considerably reduces its immunising powers must consider that the immunising powers of bile are due to the living organism it contains; it is not to be supposed that glycerine would in any degree affect the antitoxic principles of bile any more than the agents used to preserve serum affect its action. In face of this, however, it is stated to have been proved that Rinderpest bile itself destroys the organism of Rinderpest. This latter statement appears to be borne out in practice; and we know that freshly taken biles are far more likely to convey the disease than biles which have been kept for some hours. In fact, many practical workers claim that no bile will produce Rinderpest if kept for some days, but in so keeping, many biles would be lost from putrefaction, and in addition probably many cattle from blood poisoning. Biles thus kept in ice could not be used without risk, particularly if they had to be conveyed any distance in this country. I am of opinion that the immunising properties of bile are chiefly due to the antitoxic properties it contains, and probably also to a degree to the presence of the dead Rinderpest organisms. I do not think glycerine affects its immunising powers. To my mind there is no evidence to show that glycerine weakens the bile, and from experience I consider glycerinated bile has immunising properties as strong as raw bile. It is argued that raw bile causes much more constitutional disturbance than glycerinated bile, and is therefore stronger. This disturbance is also noticed in many cases with glycerinated bile, and it is possible that in many such instances where raw bile causes constitutional disturbance, this may be due to foreign organisms present in the raw bile. We know that there is far more risk of abscess formation with raw bile than with glycerinated bile. The advantages of adding glycerine to bile are enormous. It is recognised by all who have had practical experience that the addition of glycerine to bile prevents it from conveying the disease. (Of some 47,226 doses of glycerinated bile issued, no single case of its having conveyed the disease is known.) As a consequence the bile method has become undoubtedly the most valuable and practical means for the control and suppression of Rinderpest. In fact, I do not hesitate to say that it is the only possible way of dealing with the disease on the veldt with large numbers of cattle, where it is desired to control the disease with as light a mortality as possible. Serum may be used with excellent results, however, in isolated cases, as will be shown hereafter. Glycerine prevents putrefaction and, where care is used, reduces the formation of abscesses to a minimum; it further enables us to use a large number of biles which we should otherwise reject on account of their slight smell and liability to abscess formation and blood poisoning. Such biles have, however, been proved to contain strong immunising properties. It will be thus seen that glycerine is highly economical. I think glycerine has shown itself to be an excellent agent for the preservation of bile; it mixes readily with all biles, due to its strong affinity to water, of which bile contains from 70 to 90 per cent.; it does not evaporate or become rancid, and is slightly antiseptic. It is cheap and easily obtained. Glycerine can be given internally in large doses, and is often used for indigestion in calves; and from this it will be seen that it is harmless in the quantity contained in a dose of glycerinated bile. The immunity conferred by glycerinated bile (two inoculations) I consider lasts for a period of many months, from three to six months in the great majority of animals, and in many cases over six months. Cases are reported where troops have been said to have broken down after receiving two inoculations of glycerinated or raw bile within a period of three months or earlier. If careful enquiry were made it would often appear that one or two animals may have broken down, but that the rest are still immune. Such cases as these in individual animals are known to occur with most vaccines. I saw a good deal of this breaking down of biled troops during the last outbreak of 1897, and many people were then, as a result of want of experience, ill-advised as to subsequent treatment.

When a troop of biled cattle was stated to have broken down, that is to have one or two sick, it was advised that each animal be treated with serum as it showed symptoms of sickness, and I have known cases (many) where days and weeks elapsed before further animals showed signs of sickness, although the infection was constant and the owner watched his cattle daily for sick animals with a view to treating them with serum, in many cases the temperatures being taken daily. To adopt such a course when a biled troop breaks down is disastrous; the only thing to be done is to immediately reinoculate the troop with bile, and where this is done probably one or two per cent. loss only will be experienced. I think it will be admitted by all who have had practical experience of bile that the immunity conferred on some individual animals is only of a temporary nature, but this should not be allowed to damn a method which has been proved so successful, and was the means of saving more cattle in South Africa during the last outbreak than any other method, notwithstanding the fact that then the raw bile was the means of disseminating the disease to a certain extent. I should like here to quote some facts ascertained by Mr. Power at the Bile Station, Besters. When this Bile Station was started in November last, a number of young susceptible animals (2 and 3 years old) were inoculated with one dose of 10 c.c. of glycerinated bile;

some of these animals at the end of two months, and some at the end of three months received injections of virulent blood. The blood given was undoubtedly virulent, as the control animals proved. Some of these animals did not receive virulent blood, but were continuously exposed to infection. None of the above animals have to this day contracted Rinderpest, although four months have now elapsed. Mr. Power has also shown that the immunity conferred by glycerinated bile is established on the seventh day. Cattle have been sent in to the bile station to test with virulent blood. In the case of the owner of one lot, who sent his in after receiving one dose of glycerinated bile, none of the animals contracted Rinderpest; they received 20 c.c. of virulent blood. The same owner was requested to send in a further lot, and of the four animals sent three contracted Rinderpest, of which two died and one recovered. These animals were stated to have been inoculated with one dose of glycerinated bile, five or six weeks previous to their infection with virulent blood. This will be seen not to agree with the result of the cattle inoculated with the bile at the Bile Station. The glycerinated bile supplied to this owner, however, suppressed the disease which he was satisfied existed in his troop of cattle. Authenticated cases have occurred where an outbreak has been at once suppressed by the use of glycerinated bile. It has been noted in many instances that cattle which break down after bile inoculation contract the disease in a milder form, and many salt naturally. The opinion of so many as to the best method to apply appears to be to use glycerinated bile for the first inoculation and raw bile for the second. I am of opinion that a second inoculation of glycerinated bile is as good as one of raw bile, in so far as the anti-toxic action of the bile is concerned. If, with the second inoculation, fresh bile, which is possibly contaminated with virulent matter, is used, it is possible that the immunity may be stronger, but such an effect might be conveyed just as well by giving a dose of virulent blood on the tenth day after glcerinated bile, thus obviating the necessity for a second inoculation with bile. We have found, however, that two inoculations with bile are preferred. Virulent blood readily loses its virulency, and, as before stated, Rinderpest bile is said to destroy the organism of Rinderpest. It is therefore, to my mind, highly improbable that by using raw bile two days old for the second inoculation, a longer immunity is conferred than by a second inoculation with glycerinated bile. It is not practicable for a Department to use bile in large quantities and send it long distances or keep it in stock without the use of glycerine. To issue raw bile would entail the loss of a large percentage, and would necessitate the establishment of Bile Stations in many places where the disease did not exist in an infected area, as raw bile cannot be expected to keep for any time when sent from one place to another. The establishment of such stations would, of course, mean the starting of fresh centres of disease in parts, and would be unfair on many stock owners, and not consistent with suppression. It would mean nursing the disease more than is necessary. This has now become the case at Bester's as the disease has left the Ladysmith district, and this station will therefore be closed as soon as possible. The public expect the Department to issue them a material which will not produce blood poisoning, carry disease, or in any way cause loss to their stock. With glycerinated bile we have a material which is safe in this respect, and, if care is used, no loss or inconvenience will be experienced in the inoculation of clean troops. Glycerinated bile, issued by the Veterinary Department, is a mixture of a large number of good biles (putrid biles being rejected), taken from animals at the point of death or actually dead from Rinderpest. This mixture of biles ensures its being of a uniform strength. Animals are allowed to die from the disease as much as practicable before their biles are taken. It will, however, be understood that it is necessary to destroy some animals when in a collapsed condition to prevent their dying during the night and their biles becoming putrid. In all cases, however, when animals are destroyed, each animal is taken on its merits, and we do not necessarily consider an animal is fit for bile because it has been infected for so many days. We have received no complaint from people who have received glycerinated bile from us. Raw bile has, however, been returned and stated to have been received in a bad condition. Thirty-three per cent. of glycerine is added to bile, and this mixture should be kept for eight days before using for the first inoculation, but it is not necessary to keep it for this time for the second inoculation if it be required earlier. Twenty per cent. of glycerine will not keep bile for any length of time. To sum up, we have an agent in glycerinated bile which can be used with safety, which we have every reason to believe confers in the majority of cases (two inoculations) an immunity of several months, which does not communicate the disease, which does not cause abortion, loss of milk, loss of flesh, and does not necessitate the throwing out of work of the cattle inoculated, and which can be safely used for the inoculation of calves. This agent has been used solely in many districts of the Cape and Orange River Colony, and has undoubtedly shown itself to be most valuable for the removal of Rinderpest from a district. The Madagascar oxen, obtained for the preparation of bile, have proved excellent subjects for this purpose, 100 per cent. of them contracting the disease. A post-mortem examination is made on every animal by Mr. Power before the bile is taken, to ensure against the risk of conveying foreign diseases; some cases of tuberculosis have existed amongst these animals.

Regarding the serum treatment of Rinderpest. The use of serum as an immunising agent is of small practical value when compared with glycerinated bile. As an agent for the treatment of animals suffering from the disease and for the giving of a modified attack when used in conjunction with virulent blood, and thus producing a lasting immunity, it is of high value. There are, however, many serious drawbacks to the general use of serum in a district. It necessitates the establishment of a centre of disease wherever this method is carried out (salting animals). Owners who decide to treat their cattle in this manner must have an intimate knowledge of the various essential points which are consistent with success. The serum from salted animals, however strongly fortified, varies considerably, and before the serum from such animals can be used with safety, it is necessary that its anti-toxic properties be tested. The testing of serum may entail considerable loss. To demonstrate how necessary such testing is, we have salted cattle now on hand whose serum is of high anti-toxic value, and will salt animals with certainty, while we have also salted animals which have recovered from an equally bad attack of the disease, and which have been equally well fortified, whose serum is most unreliable and has no effect in checking the disease. Needless to say, we have not tested all the serum animals we have on hand (about 400), as cattle for the testing cannot be obtained at a reasonable price, and the oxen purchased for the preparation of bile cannot be used for this purpose, as it is found that cattle which die after the disease has been prolonged by the administration of serum yield small, thick, and foul-smelling biles which are practically useless. It would appear from the very small demand there is for serum that the testing of these cattle is unnecessary. This method, when most successfully carried out, entails much labour, loss of milk, abortion in many instances, loss of flesh, which is serious in the winter months, loss of a large percentage of calves, and the throwing out of work of oxen during the course of the disease, and the period of convalescence. The only hope of success is to

use fresh serum from thoroughly reliable serum cattle. The use of preserved serum is not to be recommended. By this I refer to defibrinated blood, the method of preserving which is not yet forthcoming. It has been undoubtedly proved that cattle which salted during the last outbreak of Rinderpest are still immune, and there are many such valuable serum cattle in the country. Owners possessing these cattle, if they can rely upon their serum, will probably be wise in giving their troop a modified attack of the disease provided, however, that their troop is not too large to be practically handled, and that such a course would not necessitate the carrying of virulent blood and starting a centre of disease in a clean area, to the danger of their neighbours and the district. In a country like Natal, where an animal frequently dies when moved from one district to another, the inoculation with defibrinated blood is attended with considerable risk. This particularly applies to Redwater. During the last outbreak I saw a number of cases of animals which were pining away, as it were, after recovering from Rinderpest and after serum treatment. Many of these animals died; they were suffering from chronic Redwater, communicated by defibrinated blood. At present I know of one owner in northern Natal who has been compelled to relinquish the serum treatment on account of communicating Redwater with the defibrinated blood used by him. I understand his losses from Rinderpest were small, but his losses from Redwater were heavy. There are authenticated cases of Anthrax being conveyed in this way also with the most fatal results. This may easily be done with virulent blood, but should not occur with serum, as the temperature of all animals bled for serum should be normal. In treating animals with serum I have found that it is essential that three doses of serum be administered before the specific rise of temperature takes place and after infection with virulent blood, if it is hoped to save a large percentage, and that infected troops are unsatisfactory to treat by this method. The use of serum on animals already showing symptoms of disease is not very encouraging. Regarding the shedding of sick animals, while recognising that it is necessary in bad weather, I have seen from experience that to crowd a number of sick animals into a shed will considerably increase the mortality. With reference to the spread of the disease, I do not think it is more liable to spread during the winter than during the summer. We know that desiccation is detrimental to most organisms, and the winter is the dry season in Natal. Cattle are, however, more likely to stray during this season. It is understood that during the last outbreak some owners observed the disease to spread in the winter, as it came to them at that season. Personally, I observed it to be more prevalent during the summer.

I attach opinions on this subject from D.V. Surgeons Verney, Hutchinson, Cordy, Power, and Byrne, which I should like to have published with this report. D.V.S. Amos has verbally expressed his opinion that the bile method is the most practicable means to adopt to suppress the disease.

S. B. Woollatt, M.R.C.V.S.
P.V. Surgeon.

7th April, 1902.

P.S.—The report of D.V.S. Hutchinson will appear in the next issue.

In my report I have stated that no ill-effects have been observed from the use of glycerinated bile, but it is reported this morning that out of 360 cattle inoculated, 30 have died from blood poisoning (26 of these belonging to natives, and not inoculated by the Veterinary Department), said to be due to inoculation. D.V.S. Hutchinson reports that the bile issued to this owner was in good condition when issued, and that the remainder of the 360 cattle do not show signs of blood poisoning. The whole lot of cattle were inoculated with one lot of bile. If the deaths from blood poisoning are due to bile and not to careless inoculation, the case is most exceptional. Further enquiries are being made.—S. B. W., 9th April.

To the Principal Veterinary Surgeon,—

After carefully reviewing the respective treatments, I think there is absolutely no doubt that the best method, when it has to be carried out on the South African veldt, is that of the bile method, bile being properly used. The great objection to bile was the fact that when introduced into a clean herd in a small percentage of inoculated animals, it undoubtedly produced the disease, and this, of course, was certainly a very serious aspect, but happily this defect has been overcome by using glycerinated bile. I believe, with all the large amount of statistics to hand, there is no authenticated case of glycerinated bile producing Rinderpest. Glycerinated bile not producing such a constitutional reaction, naturally it does not confer such a long immunity as the raw bile. But at the same time in the majority of cases, where two inoculations are used, then there is every reason to suppose that (in most cases) an immunity of several months is produced. That glycerinated bile used twice is a very valuable and safe remedy of removing rinderpest from a district by producing a fairly long immunity was illustrated in many districts of the Cape Colony and Free State, where it was the only method used, and its success was undeniable. With the unexpected reappearance of Rinderpest, and with the possibility that it may remain continually with us, I think that the ideal treatment of Rinderpest would be to use glycerinated bile as a first inoculation, so as to confer an immunity, and then, from 12 to 14 days after this first inoculation, to introduce raw bile; this latter would produce a more lasting immunity than the two inoculations of glycerinated bile.

In practice—and after all practice is the best test for treatment, bile showed itself so much superior to serum in many ways. One has never heard of the wholesale blood-poisoning of cattle by the bile method that there was undoubtedly produced by serum. With the pathology of Redwater, as it is known now, one can quite understand how very careful one has to be in introducing defibrinated blood into animals in South Africa. There is much less labour required in the bile method, which is often a very important item to stock owners. The losses in abortion and calves is considerably less in the bile method. There appears to be a difference of opinion as to when the immunity is produced by bile. Some observers state immunity is produced in 7 to 10 days. From what I have often seen, after bile has been introduced into an infected area, I am inclined to believe immunity is obtained at an earlier date. But, of course, this could be definitely settled by experiment. Serum, of course, is a very valuable agent in the treatment of Rinderpest, but on the veldt it often proves a great failure. This is due to the fact that the serum of individual animals varies in quality to a very great degree, some serums having no prophylactic or curative properties, and also to the fact that there is a great danger in introducing the organism of Redwater, Anthrax and other virulent diseases. If serum is to be used, it certainly must be obtained quite locally. The use of preserved serum I utterly condemn, as it proved so disastrous in the outbreak of 1897.

I believe in rare cases two inoculations of glycerinated bile have not produced a very lasting immunity; but on the other hand there are hundreds of cases to prove that the opposite effect was produced, and I certainly think that on account of a few isolated failures the glycerinated bile method should not be condemned wholesale. After all, the proof of the pudding is in the eating, and with the present outlook of Rinderpest, surely the greatest enemies of the glycerinated bile method must give it the credit of being a very valuable agent in stamping out Rinderpest from large infected areas.

F. A. Verney, D.V.S., M.R.C.V.S.

To the Principal Veterinary Surgeon.

In answer to your letter, dated the 26th ult., I have the honour to hand you my views on the Bile and Serum methods of treating Rinderpest :—

During the original outbreak of 1897 I had no personal experience with bile, as I was working with serum only, but during the past four months have been using bile exclusively.

In comparing the merits of the two methods of treatment, I consider one of the most important points is the length of immunity conferred. This, of course, is claimed for animals salted with serum.

Unfortunately I have had no chance of testing the length of immunity of animals treated in this manner.

During 1898, when in Zululand, I had an opportunity of seeing naturally salted cattle resist a second attack of the disease nine months, and probably more, from the date of first attack.

While having every confidence in the serum method of treatment, after eight months' continual experience with it, I am of opinion that, taking everything into consideration, the bile method is the most practical one to adopt to ensure success in this Colony.

My opinion is based upon the following reasons, viz :—

1. The bile method is simpler and easier to apply.

2. In the case of outbreak, the remedy is always at hand.

3. The mortality, as far as my experience is concerned, is less.

4. When a clean troop is biled, much less care is required to be taken than when treated with serum.

Have found that animals undergoing the latter treatment must be allowed a limited quantity of water only until they are getting convalescent. Should there be no shedding to shelter them, cold rains cause a large number of deaths if they occur at the critical stage of the disease.

Where owners of valuable cattle have shedding at their command, also freshly salted animals at their disposal to bleed for serum, I think the longer immunity conferred on an animal by this method justifies one in recommending serum in such cases.

In stamping out an isolated outbreak I consider bile has the very strongest claim for use, for the reason that, as previously stated, no matter in what out of the way part of the Colony the disease crops up, the remedy to combat it is at hand. When sufficient bile is obtainable to enable a cordon of immuned cattle to be placed around the seat of the outbreak, there should be reasonable hope of stamping out the disease. By using glycerinated bile for the first inoculation, there would be little or no fear of starting a fresh centre of infection.

C. H. Cordy, D.V.S., M.R.C.V.S.

To the Principal Veterinary Surgeon.

There has been no fresh outbreak of Rinderpest during the month in Ladysmith or Upper Tugela districts.

I hope I shall not be accused of being too sanguine if I say the disease has been stamped out in the districts just mentioned, and that glycerinated bile has done its work well. Glycerinated bile must certainly get the credit for what has been accomplished, as in nine out of every ten inoculated herds, this bile has been used, and in no case has there been a single outbreak of Rinderpest attributed to its use ; a fact which I feel sure will strongly commend itself to owners of stock, as, when compared with raw bile, this great advantage cannot be overlooked. I am constantly being asked, "What length of immunity is conferred by glycerinated bile ?" and "How soon after inoculation does it produce immunity ?" In answer to the first question, I will give the results of some experiments started here in November last, when the bile station was first established. We inoculated cattle at that time with 10 c.c. glycerinated bile, and these cattle have since been constantly running with the infected troop—some of them receiving virulent blood two and three months after the bile inoculation. This is now four months ago, and none of those cattle have developed Rinderpest, though they have been exposed to the infection the whole time. This, I think, proves that the immunity produced is, at least, well over four months, probably a good deal longer.

Regarding the latter question, we have proved here by testing with virulent blood that animals are immune on the seventh day after bile inoculation. It is true that isolated cases have occurred where cattle that had been treated with glycerinated bile "broke down" in a shorter time than I have stated here, but has not the same thing occurred where raw bile was used ? In fact, I think cases of this kind are liable to occur after the use of any preventative inoculation even if we occasionally find herds where a few beasts developed Rinderpest after glycerinated bile inoculation. I do not think it would be reasonable to condemn an agent that has proved itself so valuable in thousands of cases.

I understand that some people in this district were dubious as to whether Madagascar cattle were susceptible to Rinderpest. I can assure anybody who has the slightest doubt about it that these cattle take the disease in a more virulent form, if possible, than the Natal cattle.

W. M. Power, M.R.C.V.S., D.V.S.

Principal Veterinary Surgeon.

I have the honour to forward you my opinion regarding the Bile and Serum methods of dealing with Rinderpest.

During the outbreak of 1897-8 my experience was principally with serum, as I had charge of serum stations at Greytown and New Hanover, but prior to this I had a good deal of personal experience with bile at Ladysmith and district, also Newcastle and district ; but that was a time when a clear bile only was recommended for use, and one containing a sediment was rejected, which theory, of course, we found out on further investigation was erroneous, so that my early experience with bile can help me little, but it is from investigation during the later days of that outbreak that I base my opinion.

I have had many discussions with enthusiastic followers of both methods, and have seen both used most successfully, and after giving the *pros* and *cons* of both methods my deepest consideration, I have come to the conclusion that in my opinion the bile treatment would be the more practical to adopt to prevent isolated cases of the disease becoming general, for the following reasons :—

If a troop breaks out, bile can be produced on the spot, and others inoculated ; whereas with serum considerable delay occurs if the outbreak is in an out-of-the-way place, unless the owner has a salted beast.

In the after treatment with serum, if cold or wet weather supervenes, it is necessary the animals should be housed, and this, in many instances, is impossible, as the farmers have not sufficient accommodation, but in the case of bile-inoculated animals these precautions are not so necessary.

The procuring and inoculating with bile is more simple than that of the serum process.

I think a cordon of bile inoculated animals should be placed around infected areas.

J. P. Byrne, M.R.C.V.S., D.V.S.

Parasitic Nodules.

Lienaux and Fally report in *Annales de Méd. Vét.* several more post-mortem observations on cases of verminous parasitic nodules in the lungs of horses reported to them as glandered.

FIFTY YEARS A "VET."

Mr. Colin Baird, M.R.C.V.S.

The many friends of Mr. Colin Baird, M.R.C.V.S., Edinburgh, in Cupar and for miles around the county town of the "Kingdom" would assuredly join with his frends in other districts throughout Scotland did they know of the occasion in sending their hearty congratulations to Mr. Baird on attaining to-day his jubilee as an esteemed, highly respected, and successful practitioner. Mr. Baird hails from Innerwick, East Lothian, and more than sixty years ago came to Edinburgh to give effect to a long-cherished ambition to become a veterinary surgeon, entering the service of the late Professor Dick. In conjunction with his duties at the Dick College he availed himself of the opportunity of the classes for students held at the Dick College, and at the Highland and Agricultural Society's examination on 18th April, 1852, he was awarded the Society's diploma qualifying him to perform the duties of veterinary surgeon. Within a few months after his successful examination Mr. Baird betook himself to Cupar. During the fourteen years he resided in Cupar his *clientèle* included many of the county families and leading agriculturists. Those still alive in and around Cupar who joined the Fife Mounted Rifles on the formation of that very smart Corps will remember how enthusiastically Mr. Baird entered on and discharged his duties as a member of the Cupar Headquarters troop. In 1866, on the death of Professor Dick Mr. Baird was induced to return to Edinburgh and take his chance among the local practitioners in that city of establishing as good and successful a practice as he had left at Cupar. When the news got abroad among his Fifeshire friends that he was removing to Edinburgh a movement was enthusiastically and widely set on foot to mark their esteem and appreciation of his valuable professional services and as a kind and genial fellow-townsman. The token of goodwill took the form of a handsome gold English lever watch (with albert), a purse containing 100 sovereigns, and a magnificent gold brooch and gold pendant for Mrs. Baird. On returning to Edinburgh, Mr. Baird commenced practice in a comparatively small way; but now it is one of the largest and most successfully established practices in the whole veterinary profession. He was admitted to R.C.V.S. on November 22nd, 1879. As an expert in veterinary science Mr. Baird has frequently been cited to give professional opinion in disputed law cases. He also was selected as a witness in the Royal Commission on Horse-Breeding. After his return to Edinburgh, Mr. Baird was for some years resident and clinical professor at the Royal (Dick) Veterinary College, while the late Professor Walley was Principal. His patriotism led him into the ranks of the Midlothian Yeomanry Cavalry on returning again to Edinburgh. Growing years (for Mr. Baird has now nearly reached the four score) and fast increasing business brought into partnership Mr. Archibald Baird, his only son, in 1884, who at that time was veterinary surgeon with the Royal Scots Greys, having graduated for admission as a member of the Royal College of Veterinary Surgeons on 18th April, 1877. In professional skill, patriotism, geniality, and love of hard work Mr. Baird, jun., is typical of his venerable father. It is a rather singular coincidence that the semi-jubilee of Mr. Baird, jun., as a veterinary practitioner should fall on the same day as his father's jubilee, and to commemorate these two auspicious events the Messrs. Baird this (Friday) evening entertain to dinner in Milne's Hotel, Leith Street, their professional assistants, tradesmen, and employees.—*The Weekly News*, April 19.

VETERINARY SURGEONS APPRECIATED IN NATAL.

From the President's Address to the Natal Farmers' Conference we extract the following satisfactory reference to veterinary science and veterinary surgeons.

"The services rendered by the Veterinary Department, during the last year or two cannot be too highly commended. Notwithstanding the difficulties thrown in the way by the movement of stock by the military, Mr. Woollatt and his staff have suceeeded in minimising the evils arising from the spread of lung sickness and scab, and have been able to retain control of rinderpest. I have heard it said that is only police work That may be, but it is police work that has saved the Colony immense sums of money, and the loss of stock which cannot be replaced. The successful efforts to keep rinderpest within bounds are worthy of our sincerest gratitude. After the experience of the last few months, I have hopes that, when martial law is done away with, the department will be able to stamp out this plague.

The separation of the offices of Principal Veterinary Surgeon and Director of Bacteriology gives effect to a frequently-expressed wish of this Conference. Mr. Pitchford being now freed from all office work and supervision of the veterinary staff, will be able to devote his energies to investigating diseases—a work for which he is so well qualified."

ARSENICAL POISONING.

A correspondent (A. G. W.) writes respecting a dog which died from "arsenic" poisoning. The dog was taken to a veterinary surgeon, but there is no statement made as to the symptoms which the animal exhibited, which are in cases of poisoning by arsenic in any considerable quantity of the most violent character, including acute abdominal pains, reduced temperature, cramps, general œdema, delirium, coma, and death. Given constantly in small or very minute doses, arsenic causes indigestion, wasting, and chronic diseases of the bones and joints, as seen among cattle and horses which are grazing near tin and copper smelting works, and finally, unless the animals are removed from the situation where they suffer from swelling of the joints and loss of hair and teeth, death ensues.

In the case which is under consideration the dog is presumed to have died from taking a quantity of arsenic in the water which he drank from a bowl. Our correspondent states that his attention was called to the circumstance that there were certain peculiarities in the appearance of the bowl from which the dog was in the habit of drinking, and on examining it he found that the edge of the vessel was thickly coated with a white substance, a portion of which he sent for examination. The layer of white material was of about the same thickness all round the bowl. A sample was sent to an analytical chemist, who reported that it contained a large proportion of arsenic in the form of arsenite of sodium. It may be remarked here that the portion of powder sent to us undoubtedly contained a large quantity of arsenic in addition to a considerable amount of foreign material. Under the microscope the characteristic octohedral crystals of arsenic were seen in abundance in addition to fine scales of some insoluble substance. A small bottle was also forwarded which contained some of the water from the bowl, with dark-coloured insoluble matter in the fluid. This substance fell to the bottom of the bottle in a few minutes on its being allowed to rest. It was composed of crystals of arsenic, with the fine scales already referred to of some insoluble substance mixed

with foreign matter, which may be described as dirt, and which gave a colour to the deposit. As a mere matter of form, the white powder, the fluid in the bottle, and a portion of the chemical preparation obtained from a chemist were tested in exactly the same way, with the same result, excepting that the white powder from the bowl and the fluid in the bottle gave a more pronounced reaction than the chemical substance itself did, so that there need be no hesitation in asserting that the white powder obtained from the bowl, amounting, as our correspondent states, to an eggcupful, contained enough arsenic to poison a whole kennel of dogs if it had been divided among them.

The next question which is asked is as to the way in which the powder obtained an entrance into the bowl. The first suggestion which was made to the owner of the dog, that the animal had eaten rat poison containing arsenic, and then, drinking immediately afterwards from the bowl, had smeared the sides of it with saliva mixed with the arsenic, is not worth a moment's consideration ; indeed, the owner himself notices that, as the bowl was close to a wall, the animal could only have drunk from one side of it. His own view of the case, we gather, was that the arsenic must have been put in the bowl, and that in filling the vessel with water the fluid washed up over the sides, leaving the deposit of arsenic. The difficulty in this explanation is that the undissolved arsenic would fall to the bottom instead of resting upon the edge. The writer adds that he would be glad to know what arsenite of sodium is used for, under the impression that it would give him some clue as to the persons who would have such a compound in their possession. There is no difficulty in explaining what arsenite of sodium is used for, but the knowledge is not likely to give the owner of the dog the information which he hopes to obtain. The compound is a recognised medicine, and is used very much in the same way in small doses as Fowler's solution. Its action is that of a stimulant to the stomach in dypepsia and chronic catarrh of the intestinal membranes. Arsenic in different forms is also given in chronic diseases of the air passages in horses, and is said to promote recovery from influenza. It is beneficial in cases of roaring and broken wind. As an alterative it is valuable in the early stages of tuberculosis and rheumatism. Among its popular uses may be mentioned its employment by carters and stablemen to improve their horses' coats, and a very extraordinary method of using it is mentioned by Professor Macqueen in his recent edition of *Finlay Dun's Veterinary Medicines*, namely, the inclosing of a small quantity in a thin bag, which is attached then to the bit before it is put into the mouth of the horse in order to produce the frothy muzzles which appear to be admired in high-stepping horses.

Arsenic mixed with potash or soda to increase its solubility is also used in dipping preparations for sheep, and in manufactures it is employed for the purpose of producing certain colours, notably in wall papers, and it is recorded that arsenical paper left in the way of animals has sometimes been eaten in quantities sufficient to cause death, and it is also stated that rabbits at shows have been destroyed by nibbling at the bright green prize cards. Our correspondent will, therefore, realise that there are numerous sources from which arsenic may be derived, even without including its use as a poison for vermin. Sodium arsenite is said to be a very efficacious material for getting rid of mice by sopping pieces of bread in a strong solution and placing them near the places which the mice frequent, an expedient, it may be mentioned, which is by no means free from danger to other animals than mice. The great puzzle, however, still remains, that is to say, the adherence of the compound containing the poison to the edges and sides of the bowl. Without the admixture of some adhesive substance, neither arsenious acid (white arsenic) nor any of its compounds would manifest the slightest disposition to stick to anything, much less to the glazed surface of an ordinary earthenware or china bowl, if the implicated vessel were of this material, of which we are left in ignorance by our correspondent, or even of a tin bowl, unless it had been used for holding some sticky substance and left uncleansed, or a wooden bowl, which we mention last, as the least desirable form of bowl for the purpose, might afford sufficient hold for the powder to adhere to the surface.

A chemical friend to whom the problem was proposed solved it to his own satisfaction by remarking that arsenic was largely used in the glaze which is applied to the interior of china and earthenware vessels. His argument, however, would, of course, fall to the ground if the bowl were unglazed or if it were made of metal or wood. In any case, it is difficult to understand that such a quantity of arsenic could have been introduced by accident unless it had been mistaken for flour or meal. It may be remarked that the account of the case omits all reference to post-mortem examination of the dog or analysis of the stomach or other organs.—*The Field.*

THE SANITARY INSTITUTE.

The Autumn Congress of the Institute will be held this year in Manchester, under the Presidency of the Right Honourable the Earl Egerton of Tatton, commencing on September 9th.

Preliminary Arrangements.

Section I.—Sanitary Science and Preventive Medicine.
President. —Sir James Crichton-Browne, M.D., L.L.D., F.R.S., F.R.S.E.
Section II.—Engineering and Architecture.
President.—Sir Alexander Binnie, M. Inst. C.E.
Section III.—Physics, Chemistry, and Biology.
President.—A. Sheridan Delépine, M.B., C.M., B.Sc.

Conferences.

Of Municipal Representatives.
President.—Alderman Alex. McDougall, J.P.
Of Port Sanitary Authorities. *President.*—
Of Medical Officers of Health.
President.—James Niven, M.A., M.B.
Of Engineers and Surveyors to County and other Sanitary Authorities.
President.—Charles Jones, M. Inst. C.E.
Of Veterinary Inspectors.
President.—W. Augustus Taylor, F.R.C.V.S.
Of Sanitary Inspectors. *President.*—W. Bland.

The meetings will be held in the Owen's College and the Municipal School of Technology.

Arrangements will be made with the Railway Companies to issue return tickets to Manchester, as they have done at previous Congresses, at a single fare and a quarter. Certificates to enable ticket holders to obtain reduced fares will be forwarded with tickets.

A VETERINARY SURGEON'S CLAIM.

At a sitting of Southampton County Court on Tuesday, April 8, before his Honour Judge Gye, Mr. Stephens appeared for George Frederick Gould, veterinary surgeon, Commercial Road, Southampton, who claimed £30 15s. 5d. from C. Rousseau, Shirley, Southampton, and of the Great Eastern Hotel, Parkeston, Essex. The claim was for attendance on horses intended for remounts in South Africa, for medicine supplied, dressings, embrocation, shoes, etc.—Mr. Godwin, instructed by a firm of London solicitors, applied for an adjournment. Mr. Stephens said it had taken eight weeks to serve the sum-

mons, and opposed the adjournment. His Honour refused the adjournment, and plaintiff proved his claim. The claim mentioned attendance on horses suffering from influenza, pneumonia, etc., and included many gallons of embrocation.—Judgment for plaintiff within 14 days.—*Hampshire Advertiser.*

HORSE OWNERS AND THE R.S.P.C.A.

At Southwark Police Court a carman named Ballam was summoned, before Mr. Paul Taylor, for cruelly working a lame horse in Southwark Street, and a horse-keeper, named Woodger, was summoned for causing it to be so worked.

Mr. Drake, barrister, appeared for the defendants on behalf of their employers, Messrs. Lavington Bros., carriers, of the Old Bailey, and Cartwright Street, S.E.

Inspector Hart, of the Royal Society for the Prevention of Cruelty to Animals, stated that the horse was one of a pair which were being driven at a trot. It was very lame from a bone spavin on the near hind hock, which was greatly inflamed, and the animal was unable to walk without pain. He called the attention of a constable, and the horse was taken back to the stable.

Police-constable 398 M said the horse was undoubtedly lame, but he did not think the case was bad enough for a charge.

Messrs. Stanley and Son both gave evidence as to the present condition of the horse, which they said was due to a spavin of long standing—probably 12 months. It might yield to treatment, but meanwhile the animal was totally unfit for work. They had only just seen the animal in the yard of the court.

Inspector Rogers, of the Royal Society for the Prevention of Cruelty to Animals, complained that Mr. Stanley, jun., and the Society's officer were not allowed to see the horse after it had been sent back to the stable.

For the defence, Mr. Gosling, F.R.C.V.S, stated that the spavin had only started since Christmas, and that the horse was not lame. There was a stiffness of the limb, but no pain or heat, and the animal was quite able to do a reasonable journey at a walking pace. He had told the defendant Woodger that the horse was all right for light slow work, but must not be trotted.

Mr. Walter Perryman gave a similar opinion.

With regard to the complaint of the Society's officer, Mr. Lavington, managing director of the firm, said he did not like the officer going behind his back and questioning his men as to the treatment of the horse, whether it had been blistered and so on. He therefore refused permission. His firm kept 250 horses and employed a competetent veterinary surgeon, and he disputed the right of the Royal Society for the Prevention of Cruelty to Animals, which was only a private society, to go upon private premises.

The magistrate said he was inclined to think that the spavin was of a more serious nature than Mr. Gosling represented. He regarded Mr. Stanley's opinion as more reliable. That, however, was not the question which he had to decide, but whether there was evidence of guilty knowledge on the part of the defendants. He decided that there was no such evidence as against the horse-keeper, who acted under competent medical advice in sending the horse out for light slow work, but the carman was the person who was to blame, because he was seen driving the horses at a trot when they ought to have been walking. He must impose a penalty upon Balham, to make people in his position more careful, viz., 10s. fine and 23s. costs. With regard to Mr. Lavington, that gentleman took the line that the Society's officer had no right to go to his firm's stables, in the first instance, without asking his permission, for the purpose of seeing the horse, and that view of the case had been put forward by Mr. Drake. The fact that permission to see the horse was refused in the first place by the horse-keeper, and secondly by Mr. Lavington, was put forward on behalf of the Society as an aggravation of the case; but each case must stand upon its own merits. Messrs. Lavington were very well known to have a large business, which was properly conducted, and he (the magistrate) was not prepared to say, under the circumstances, that he thought it was advisable for the Society's officer to go in the first instance to see the animal without communicating with the principals, because in this particular case there was no ground for supposing that they would have acted in other than the most proper way in getting proper veterinary assistance for the horse. In other cases, however, where persons were not in the same position, he should hesitate to say that an officer would not be amply justified in going in the first instance to get into the stable, because he had known many cases where, if the Society's officers had not practically taken the law into their own hands, and insisted upon seeing the animal, they would never have got at the animal again. Therefore he did not think that point of going upon private property was a matter that ought to be unduly pressed against the officer, who was only endeavouring to do his duty, though sometimes he might do it with a little more zeal than discretion. He attached no blame to the officer, and he was surprised that Mr. Lavington objected to let him see the horse.

The summons against Woodger was dismissed, and Ballam was ordered to pay 33s.—*Morning Advertiser.*

Cattle Disease in Rhodesia.

The British South Africa Company states that it has received official information that the cattle disease which is now causing transport difficulties is not rinderpest, but a form of redwater. The veterinary advisers of the Administration say that the approaching cold weather will probably stop the spread of the disease. It is not considered that the panic-like views expressed in Buluwayo are justified. The services of an expert from the Cape Colony have been obtained, and he will arrive in Rhodesia in the present week. The Administration is making temporary arrangements to assist the Selukwe Mines with mule transport.—*Live Stock Journal.*

OBITUARY.

FREDERICK DANBY, M.R.C.V.S., Bainton, Hull.
Graduated, Edin: April, 1864.

Mr. Danby, who for the past 30 years has had an extensive veterinary practice in East Yorkshire, died on Monday, April 28, at the residence of his sistes-in-law, Mrs. Wright, Lockwood Street, Driffield. Mr. Danby, who had been in failing health some time, was 59 years of age.—*Hull News.*

Appointment.

At a Committee meeting of the West Sussex County Council, held at Horsham, Mr. J. W. PRITCHARD, M.R.C.V.S, of Arundel, has been appointed Veterinary Inspector under the Diseases of Animals Act, for the Arundel Division, in succession to the late Mr. A. G. Rolls. Mr. Pritchard is well known in West Sussex, having had four years' experience both at Brighton and Chichester, while for the past five years he has been in the district of Worthing, Arundel, and Littlehampton.—*Sussex Daily News.*

A New Silver Salt.

This a combination of silver and gelatose called Abargina, it is represented to have many advantages over existing salts, it has a strong power of dialysis through tissue, so carrying its action to the deeper structures. A solution is prepared with the greatest facility, and distilled water is not absolutely necessary, and may be kept in light. If Hydrarg perchlor. is added it may be kept almost indefinitely. Its price is only one-third that of protargol. Abargina is a bulky whitish powder, easily soluble in cold water, and concentrated solutions may be stocked to be diluted with water to 2, 1, or ½ per cent. solutions. The solution becomes slightly yellow with age, or if kept in strong light. Gelatose of silver has been used with great success in blenorrhœa, so this new preparation should have a field of usefulness.—*Giornale de Farinacia.*

Tuberculosis in a Horse.

The animal had been treated for colic on four previous occasions. On the fifth the pain was accompanied by loss of appetite, general off-colourishness, temp. 38·8°, mouth dry and pasty. For 17 successive days this condition remained much the same, temp. ranging from 38·6 to 37·6, then it rose rapidly to 40·1, varying from 39·5 to 41·2 for the five following days, with diminution of the fæcal and renal excretions accompanied by a swelling at the posterior edge of the liver, thought to be due to an abscess, extreme weakness supervened followed by death.

Post mortem.— Fatty ?) hypertrophy of the liver, weight 16 kilos., adherence, and a huge abscess in the spleen which had a communication with the colon, and several smaller reddish isolated or confluent abscesses ; kidneys hypertrophied and affected with catarrhal nephritis. Supra-renal capsule showed some tubercular granulations. Pus from the splenic abscess showed tubercle bacilli. (Koch.)—*Rev. Vét.*

Diphtheria in Birds.

From his bacteriological investigations into diphtheria in birds, Guerin concludes :—

1st. That the pigeon is the most susceptible of poultry and that the microbe increases in virulence by passage through pigeons.

2nd. That in pigeons the disease is readily produced by inoculation or injection of virulent products, especially excretions of affected birds.

3rd. Intra-peritoneal inoculation of attenuated virus confers immunity to susceptible animals against active virus, whereas hypodermic injection is ineffectual.

4th. By cultivation through the horse a very efficient protective serum may be obtained, which will confer immunity by vaccination.—*Revue Vét.*

CORRESPONDENCE

EQUINE HEAD GEAR—EYE FRINGES.

Sir,

I feel I cannot let pass without comment the letter on this subject, by Mr. J. M. Lund, which appeared in your issue of March 15th. His South African experience with eye fringes is so absolutely at variance with my nine years experience in India that I must protest against his sweeping condemnation of this humane article of head gear.

Possibly all may not know exactly what an eye fringe is like, so I venture a short description. The eye fringe in the form most commonly used consists of a strip of leather which is attached to the brow-band of the head stall, or sometimes acts as a brow-band ; to the lower border of this band are attached numerous cords about five or six inches long which hang down over the forehead and eyes. Mr. Lund says, "The fringes come in contact with the horses' eyelids causing continuous winking." What actually happens is that the cords rest lightly on the upper part of the upper eyelid and I have never seen the continuous winking he speaks of.

It is perfectly true that if a horse lies down in a wet standing and rests his head on the ground that the strings of the fringe will get covered with mud which, when dry, will probably cake, and the strings will be fixed together, but even in this state I do not see how they come in actual contact with the mucous membrane of the eye. Besides which this caked condition of the cords of the fringe is so quickly and simply rectified that it is scarcely worth mentioning. One has just to take off the fringe, rub the cords briskly together in the palms of the hands, beat out the dust by striking them once or twice over one's knees, and the thing is done.

Mr. Lund specially objects to them in sick lines because you cannot see the expression "when the eyes are covered with mud and string. If this filthy mass is removed the eyes appear as if the horse was recovering from a big dose of opium or other narcotic, a condition which is likely to mislead a young practitioner." I can only say that I am quite sure that this appearance of the eyes would not be due to the fringe.

I can well believe that under the conditions of South African warfare all sorts of diseases of the eyes arising from exposure must be very common. Shade is very scarce and the glare trying, while dust storms are very frequent. Can we imagine conditions more favourable for all sorts of affections of the eyes.

In fact I can't help thinking that Mr. Lund has met with various inflammatory conditions of the eyes due mainly to exposure, and he has wrongly put all the blame on the eye fringe. The best argument that the eye fringe is not the instrument of torture that Mr. Lund would have us believe may be found in the fact that it is in practically universal use all over India. I don't remember a single inflammatory condition of the eye that I could attribute to the eye fringe, but I could mention numbers of cases of running eyes and swollen eyelids where the horse has been left without a fringe at the bad fly seasons of the year.

So far I have only tried to show that the eye fringe is not the "cruel arrangement" that Mr. Lund affirms, but before closing the letter I should like to say a word or two in favour of its use, and I feel I cannot do this better than by relating my experience a month or two ago.

This is a landing and purchasing depôt chiefly, and horses are not usually kept here any length of time, but this year, owing to various reasons, we had to keep a number on into the early part of the hot weather. The horses land and are purchased in plain hempen halters and no other gear is issued until they get up country. I had to call the attention of the superintendent to the large number of cases of sore and swollen eyelids and running eyes, and recommended the immediate issue of fringes. This was done, and all the eyes were right in a few days time.—Yours truly,

Remount Depôt,
Calcutta.

E. E. MARTIN,
Vet.-Capt. A.V.D.

THE CENTRAL VETERINARY MEDICAL SOCIETY.

Sir,

No doubt most members of the profession have read and re-read the recent paper and discussions of the above Society, and I think that not a few must feel some regret that a Society which has always been such a useful one to its members should allow itself to be the medium through which personal animosities are clearly making themselves felt. Most young practitioners on leaving College like to join a Medical Society, and rightly so, for by so doing they are able to meet brother practitioners once a month and take part in discussions on veterinary subjects which give them many practical hints in their every day life. It is, I believe, the object of the Society to further the interests of veterinary science and to assist its members; and a very laudable one, too. As a member I have derived a good deal of pleasure and some valuable information from some of these meetings, and I for one cannot but view with regret the change that has taken place so suddenly in the tone of the recent paper read there, and was glad to see that one gentleman who was present rose to protest. I cannot but think that this form of discussion will not further the interests of the Society, for country members will not spend time and money to come to London for the purpose of listening to the ventilation of what seemed uncommonly like personal ill-feeling on the part of certain members, and the sooner the Society returns to the discussion of veterinary science and drops what appears to be veterinary personal politics, the better I think it will be for its own interests, and those of its members.

The Society is, I believe, always pleased to see visitors introduced by members; but I think any gentleman so introduced should remember that he is only a "visitor," and any remarks that he may make in taking part in the discussion should be those one would expect to hear from a gentleman in his capacity, and not those that might be construed as "personal allegations;" as, not only is it bad form in him, but in the event of any unpleasantness arising therefrom the gentleman who introduced him would be placed in a very uncomfortable position.—I remain, yours very faithfully,

A Country Member.

ENLARGEMENTS ON A HORSE'S BACK.

Sir,

The notes under the above heading in your issue of May 3rd remind me of a somewhat similar case which I had last year when I was in veterinary charge of the Remount Depôt at De Aar, South Africa, but there were certain differences between the case recorded by R. T. A. and my own.

My patient was not a grey, but a rich, dark bay, ridden by an officer of the Royal Engineers. She was brought to me for treatment of what the groom rather aptly designated "blood-blisters" on the withers. These "blood blisters" were about the size of a shilling; altogether they numbered about a dozen; they did not appear simultaneously, but one after the other, and were confined to a patch some four inches in diameter. When they ruptured they discharged a thin sero-sanguineous fluid, and out of one of them I obtained a parasite, 1½ inches in length.

This parasite was quite different in appearance to that described by R. T. A. It was just like a very thin thread-worm, tapering at one end; the other end *appeared* to have been broken off, but I cannot say whether this was *actually* the case. The most careful search failed to find any detached portion of this parasite; and so long as I remained at De Aar I kept the mare under close observation without seeing any other parasites; but I lost sight of the mare when I left De Aar and went moving about on Rinderpest duty. I shewed the parasite to Lieut.-Col. Fred. Smith, of the Army Veterinary Department, who said that—in his experience—it was unique, so far as equine patients are concerned.

As a matter of interest, I may mention that I also shewed the parasite to Major Cockerill, of the Royal Army Medical Corps, who told me that a similar parasite is comparatively common in the calves of men's legs on the West Coast of Africa, where it is commonly called the "guinea-worm."

Edward R. Edwards, M.R.C.V.S.
96 Blackstock Road,
Finsbury Park, N.

Sir,

In your last issue I noticed an article signed by R.T.A. regarding small tumours he noticed on horses' backs containing a parasite, and he was wondering if they were peculiar to grey horses.

I had several cases last spring, and have also had others this spring, but in my cases they were in black horses. I should imagine there is nothing to prevent this condition attacking any horse, and that it is merely a coincidence that his cases all occurred in grey horses; as a matter of fact most of my cases were in black horses for the reason that they occurred in a stable where only black horses were kept, but most of them were young horses newly imported from Ireland and often in very poor condition, although other horses similarly affected were in hard work.

"Country Practitioner."

FOOT-AND-MOUTH DISEASE—DIAGNOSIS.

Dear Sir,

Mr. Crowhurst's letter reminds me of an outbreak which occurred near Cambridge in December, 1894, when a flock of sheep fell lame and several had sore mouths. I reported it to the Board of Agriculture, and the late Professor Duguid was sent down, and he corroborated my diagnosis.

As in Mr. Crowhurst's case, my services were no longer required—to which I had no objection—but the *county* was "closed" causing great inconvenience and annoyance to stockowners for twenty miles or more from the affected flock in some directions, whereas in another it was only a short distance to the next county, where no restrictions were applied to the movement of stock. This anomaly was pointed out to the Board of Agriculture, and the restrictions were promptly extended to the neighbouring county. Surely such an experience should prevent a similar blunder occurring at any future time. It was suggested then—as Mr. Crowhurst very properly suggested in his case—to form a circle round the infected place, quite independent of parishes or counties, and much friction and vexation would be thereby avoided.

In our outbreak many of the stockowners did not believe the diagnosis was correct, and I received many hard words from them, and some have never forgotten it *or forgiven me* to this day, for, as they said, "shutting up the county and causing so much inconvenience and trouble." Of course, no cattle had been in contact with these sheep, and in order to prove the correctness of my diagnosis I asked to be allowed to place a few young cattle in the sheep pen to see if they would "take" the disease, but this was not permitted. I cannot see any objection to such a course, especially if the owner would consent to have them slaughtered if they became affected, and it would, I am sure, satisfy the public and give them confidence in the inspectors.

At that time, and since—notably when this subject was brought before the National and the Eastern Counties V.M.S. a year or two ago, I asked whether cattle or sheep ever had vesicular eruptions on their feet and in their mouths at one and the same time without being effected with Eczema epizootica? and my professional brethren always answered *No*, but some farmers in 1894 said *Yes*, and most of them emphatically held is was *quite common* to find sheep with sore feet and mouths; and accounted for the mouths being sore, from the sheep licking their sore feet. At that time I confessed I had never seen this, and I asked those who expressed their views so positively, to let me know whenever they had another case, so that I could have an opportunity of seeing it; but to this day I have never received a summons to such a case—nor do I believe such a condition ever existed. If it does, is it likely we—as veterinary surgeons—are unacquainted with it, and may mistake such lesions for those of foot-and-mouth disease in sheep? We are not often called in to attend sheep, perhaps on account of their small value, but most flock masters thoroughly believe the shepherd knows more about the diseases of sheep than veterinary surgeons do.

I should like to know whether any of your readers are acquainted with any disease of sheep—except foot-and-mouth—where vesicles appear in the mouth and on the feet at the same time? and also what objections there are to placing young cattle into the fold with sheep suffering with Eczema epizootica as a diagnostic test?—Yours faithfully,

GEO. A. BANHAM.

"OUR POSITION."

Sir,

The position held by our profession in several departments is not at all satisfactory. There is a decided want of united action, in fact as far as I can judge all the kicking is done now and then by yourself in the form of an editorial. In my opinion this is of little avail, what we want to do is to act on the hints supplied through your paper and get Members of Parliament to put questions on our behalf. As an example, a few weeks ago I got a Member of the House of Commons to put on the question paper a question regarding that expert in prickly heat who said he was almost a passed veterinary surgeon before the Commision on Remounts. The result of this was, that the whip of his party was asked to get at my friend to try and induce him to delay the question. He was promised an answer later on, that time has not yet arrived and never will unless the question is repeated.

We must keep at the ministers of the different departments, every few nights. Frame the question, make it as short as possible, see that the facts are correct, and send it on to a Member to ask. One must not be surprised if a Clerk of the House takes the sting out of the question. I have had this done to some of my questions, with the result that the Cabinet Minister in answering managed to get off with an evasive answer.

This is not a question of party politics, it is a struggle with the official gang, and an M.P. informs me that we will never get redress within reasonable time unless by worrying the Minister of a department by asking questions. The subjects I would suggest for immediate attention are: The A.V.D., rank and pay, the remounts, opinions of colonels before Austro-Hungary Commission, qualifications of buyers, appointment of Colonel Long. The Board of Agriculture, Mr. Hanbury's learned remarks from time to time give plenty of scope. I hope to see this matter taken up as I suggest, even although many are like myself,

"A TORY."

Sir,

A well known member of parliament recently suggested that the House of Commons should be composed of business men. If he had said *active* business men he would have gone one better. The active business man frequently has an intimate knowledge of the capacity of his subordinates. The retired or passive business man is frequently lamentably ignorant thereon. In order for any service to be efficiently managed and administered it is necessary that the head should know intimately the capabilities of those placed under him. It seems to me that lack of knowledge of this description is accountable for much of our lamentation, neglect and degradation.

An experienced breeder of prize hackneys would hardly choose a carpenter to look after his brood mares, but a man who had made his money, say as a timber merchant, might like to make his carpenter friend his stud groom, and he even might do so, until he found himself losing his money through the ignorance and incapacity of his factotum. I don't suppose the members of the veterinary profession who hold high rank in the army are responsible for Col. Long's appointment. There will probably be men above them, and rich men, who rule the roast and who have the influence by reason of the money they possess. Capacity has not always the most influence. It is the men with the most brass that get most of their own way.

I didn't altogether agree with you, Mr. Editor, in your recent defence of Capt. Hartigan. Do you really think that a *retired* veterinary surgeon was the best man for that post, even if he had distinguished himself as a steeple chase rider. By comparison I don't think a *retired* admiral would be the best man to select ships for a naval expedition. Common sense seems to suggest that a middle aged active and acting veterinary surgeon of proved capacity and ability would have been the best man for the job. Equally from a technical point of view I should say that an acting admiral would be better than a retired admiral for the other job.

The profession ought to watch the forming of the Remount Department and seek to make its presence felt therein. There will in the future be plenty of money in it, and for the credit of the nation I sincerely hope that the best men in our profession will be promoted to the best positions in it. The best men, even "let them all come," can undoubtedly be picked from the ranks of the present day acting veterinary surgeons. Practical men and good business men can be found in these ranks who can judge horses, examine them, and buy them worth the money, and there are also men in the profession who understand the breeding and rearing of horses second to none. "Let the shoemaker stick to his last" is an old saying and a good one; let the artillery officer stick to his guns, and don't let us as a profession quietly acquiesce in the forging by other nations of the by-word: "England, jack of all trades, and master of none!" The profession in this matter wants to give a long pull, and a strong pull, and a pull altogether, and there is no reason then why its position should not be materially improved, for I feel convinced that there never was such a chance for us to advance as there is now if we only have the men and money to make the best of the openings presented.—Yours truly,

G. MAYALL.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED.—Col. J. A. Nunn, Messrs. E. R. Edwards, G. Mayall, W. A. Dellagana, S. Wharam, H. Eve, C. Sheather, J. E. Miller, Patrington; J. W. Flanagan, F. E. P. "Country Practitioner."

The Agricultural Journal (Natal), *Report of the Health of the City of Manchester, 1901*, by James Niven, M.A., M.B., *Hull News*, *Sussex Daily News*, *The Evening Dispatch* (Edin.)